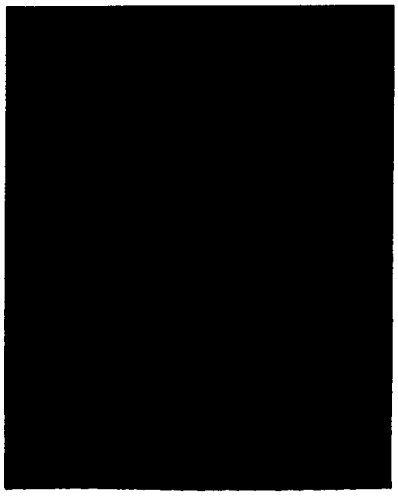
KAWAI

PERSONAL KEYBOARD

FS650

Owner's Manual



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Thank you for your purchase of the KAWAI FS650 Personal Keyboard.

How to use this manual

This manual is divided into two sections: Basic Operation and Advanced Operation.

The Basic Operation section will help you become familiar with the basic, but extremely powerful, features of the FS650. By the time you're through with this first section, you will have a clear understanding of how to select Tones and Rhythms, adjust Tempo, use Auto-Accompaniment and Recorder functions, and operate ONE FINGER AD-LIB.

The Advanced Operation section will help you explore FS650's more advanced features such as combining Tones, adding Effects, and programming Accompaniments or ONE FINGER AD-LIB phrases. To get the ***most*** from your FS650, please read this entire manual ***carefully*** -- beginning with the important information on page B – 1.

Should you have any trouble getting the FS650 to perform properly, please refer to the Table of Contents (on the next page) and review the pertinent section of this instruction manual.

Have fun learning to play your FS650!

■ WARNING:

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instruction manual, it can cause interference to radio communications. The rules with which it must comply afford reasonable protection against interference when used in most locations. However, there can be no guarantee that such interference will not occur in a particular installation. If this equipment should be suspected of causing interference with other electronic devices, verification can be made by turning its power off and on. If this equipment does appear to be the source of the interference, you should try to correct the interference by one or more of the following measures:

— reorient the receiving antenna.

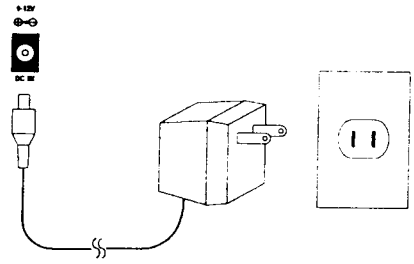
— move the receiving away from the instrument.

— plug the instrument into a different outlet so that it and receiver are on different branch circuits.

— consult the dealer or a qualified service personnel.

■ This instrument complies with the limits for class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

Before Using the FS650

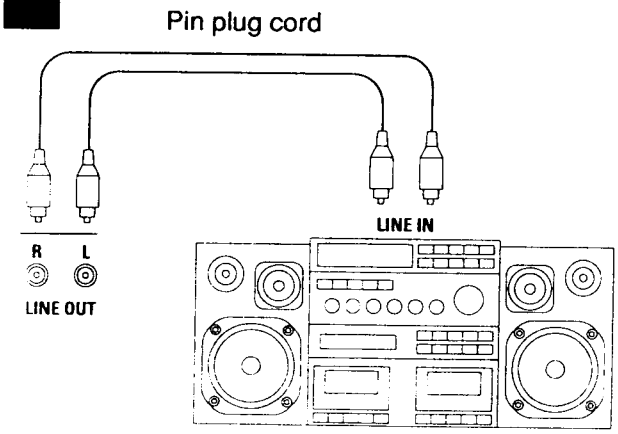


■ To use an AC power outlet:

Connect a PS-121 (or PS-123) adaptor (available separately) to the adaptor terminal on the rear panel of the FS650. Then, connect the adaptor to a wall socket.

■ Connecting the FS650 to an audio device

To enjoy listening to the sound of your FS650 through your home stereo system or other external audio device, purchase a standard connecting cord (Stereo RCA pins) at an electrical goods shop or an audio specialty store. Use it to connect the FS650's LINE OUT jacks to the LINE IN or AUX IN jacks on your audio system.



■ About the FS-650's internal memory

The contents of the FS-650's internal memory will be kept stored by a battery built into the unit for a period of up to five years. The data that are maintained by this battery are as follows:

— Song data recorded using the recorder.

— Patterns created using the pattern maker.

— Phrase created using the programmable ONE FINGER AD-LIB feature.

Note that if you turn the power switch ON while holding down keys C and E at the left end of the keyboard, all of the contents of the memory will be erased, and the keyboard's factory settings will be restored.

Before Using the FS650

1. Cautions

- Do not subject the FS650 to severe shocks.
- Do not expose the FS650 to direct sunlight, or high temperatures such as inside your car on a warm day.
- Do not use the FS650 where there is excessive moisture or dust.
- Do not disassemble or attempt to modify the FS650.
- Should the FS650 become soiled, clean it using a soft, dry cloth. If this does not remove the stain, wet the cloth slightly before wiping. Never use alcohol or thinner to clean the FS650.
- Do not allow foreign matter to enter the gaps between the keys or around the buttons.

2. Connecting the power supply

The FS650 can use either your home AC power outlet or dry cell batteries as a power source.

■ To insert batteries:

1. Turn the unit over and remove the battery cover.
2. Insert the six Size C dry cell batteries included with your FS650. Be sure that they are aligned correctly.
3. Replace the battery cover.

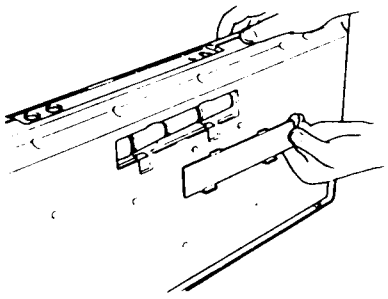
Notes:

— As the batteries reach the end of their usable lifespan, the sound of the FS650 will become quieter and the sound quality will begin to change. The unit may also begin to function improperly. At that time you should replace all six of the batteries.

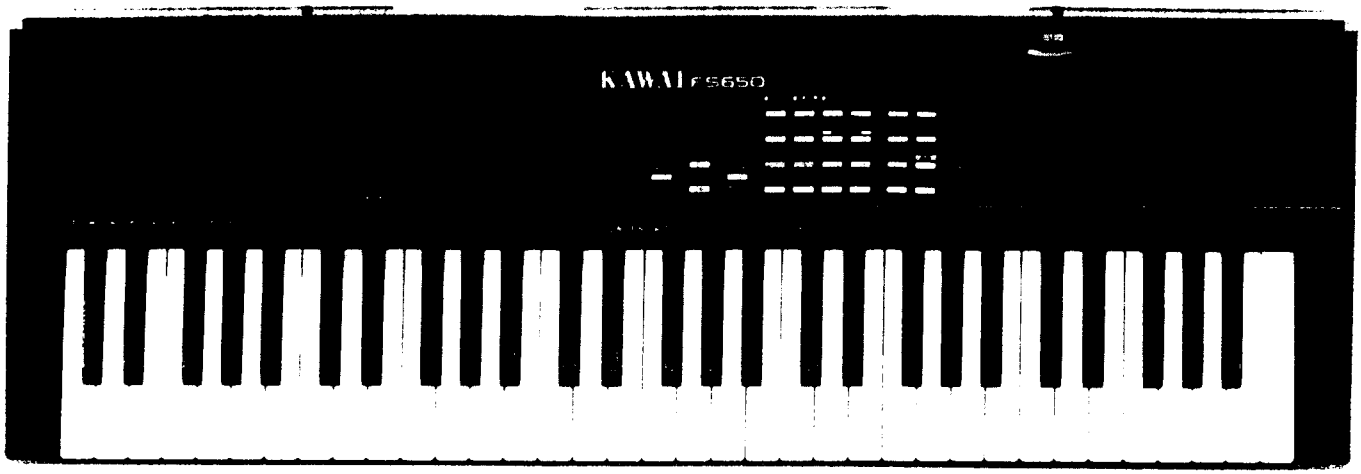
— Do not mix battery types, as this may cause problems such as battery fluid leakage.

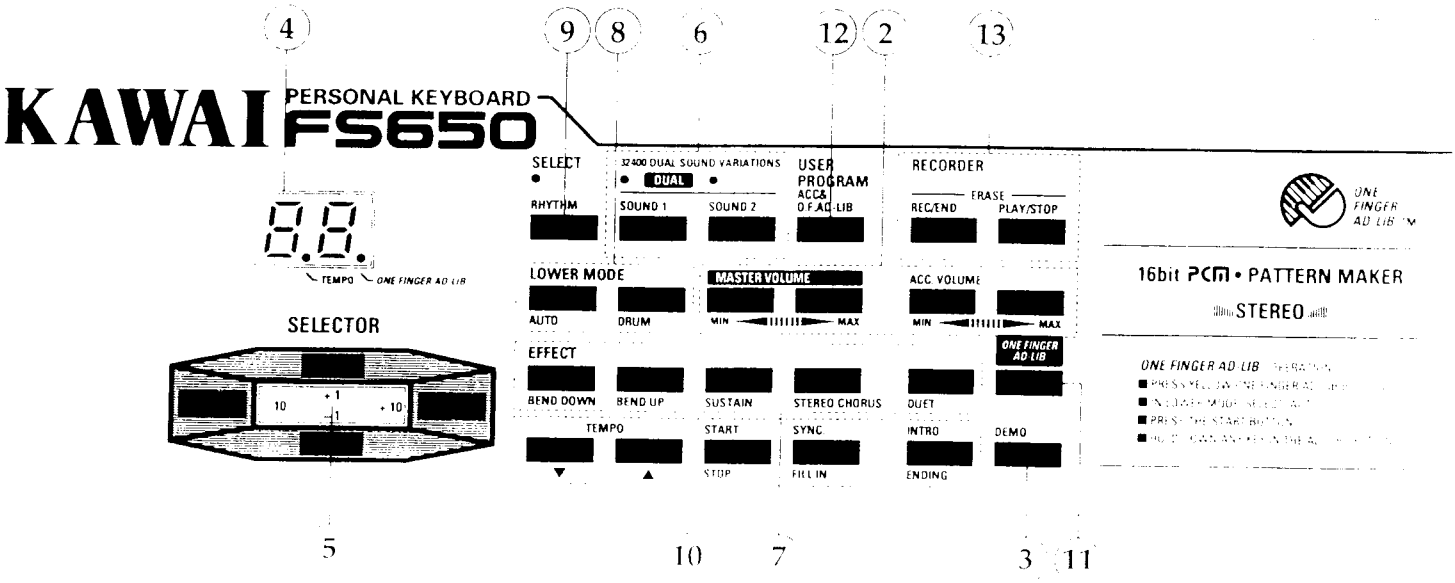
— Remove the batteries when not using the FS650 for long periods of time.

2-2



Size C dry cell battery x 6


KAWAI FS650


1
4
9
8
6
12
2
13
KAWAI PERSONAL KEYBOARD FS650
TEMPO
ONE FINGER AD LIB
SELECTOR
SELECT
RHYTHM
32400 DUAL SOUND VARIATIONS
DUAL
SOUND 1
SOUND 2
USER PROGRAM
ACC& O.F.AD-LIB
RECORDER
ERASE
REC/END
PLAY/STOP
LOWER MODE
AUTO
DRUM
MASTER VOLUME
MIN
MAX
ACC. VOLUME
MIN
MAX
EFFECT
BEND DOWN
BEND UP
SUSTAIN
STEREO CHORUS
DUET
ONE FINGER AD LIB
TEMPO
START
STOP
SYNC
FILL IN
INTRO
ENDING
DEMO
ONE FINGER AD LIB
16bit PCM • PATTERN MAKER
STEREO
5
10
7
3
11

Overall Diagram and Explanation (Operation panel)

(1) **POWER** switch
This switch turns the power on and off. When the power is turned on, the display window will light, showing the number 0 1.

(2) **Volume Control** buttons
The master volume buttons control overall volume of all notes played on the keyboard. Melody, ONE FINGER AD-LIB and Accompaniment volume can be adjusted separately using the appropriate buttons found to the right of Master volume.

(3) **DEMO** button
Pressing this button starts the built-in demo song contained in the FS650's memory. Press it again at any time to stop the demo song.

(4) **Display**
The display window shows which sound or rhythm is currently selected. The window is also used to display a wide variety of other information which will be described later in this manual.

(5) **SELECTOR** buttons
These buttons are used to increase or decrease the numbers in the display window by intervals of 1 or 10.

(6) **SOUND 1** and **SOUND 2** buttons
These buttons are used to select from among the one hundred sounds stored in the FS650.

(7) **EFFECT** buttons
These buttons allow you to add variety to the FS650's one hundred sounds by adding effects such as Pitch Bend, Sustain, Stereo Chorus, and Duet harmony to them.

(8) **LOWER MODE** buttons
These buttons are used to select the playing mode for the nineteen keys on the left end of the keyboard (the Lower keyboard). There are three playing modes: Normal mode in which the Lower keyboards play the same sound selected for the Upper keyboard; AUTO mode which lets the Lower keyboards control FS650's Auto-Accompaniment; and Drum mode which lets the lower keys play the percussion sounds pictured on the case above each key.

(9) **RHYTHM** button
This button is used when selecting from among the one hundred rhythm and accompaniment patterns stored in the FS650's memory.

(10) **Rhythm Control** buttons
The FS650's Rhythm and Auto-Accompaniment section gives you four types of patterns to work with: Intro Patterns that can be used at the start of a song; Fill-in Patterns, to add contrast and variety during a song; Ending Patterns; and Basic Patterns which will be the foundation at any song using Auto-Accompaniment. These four types of patterns are controlled using these buttons. The two tempo buttons can be used to control changes in Rhythm and Auto-Accompaniment tempo. Lastly, the **SYNC** button lets you start when you press a key in the Lower keyboard.

(11) **ONE FINGER AD-LIB** button
This feature allows you to sound like a PRO. with the touch of a finger.

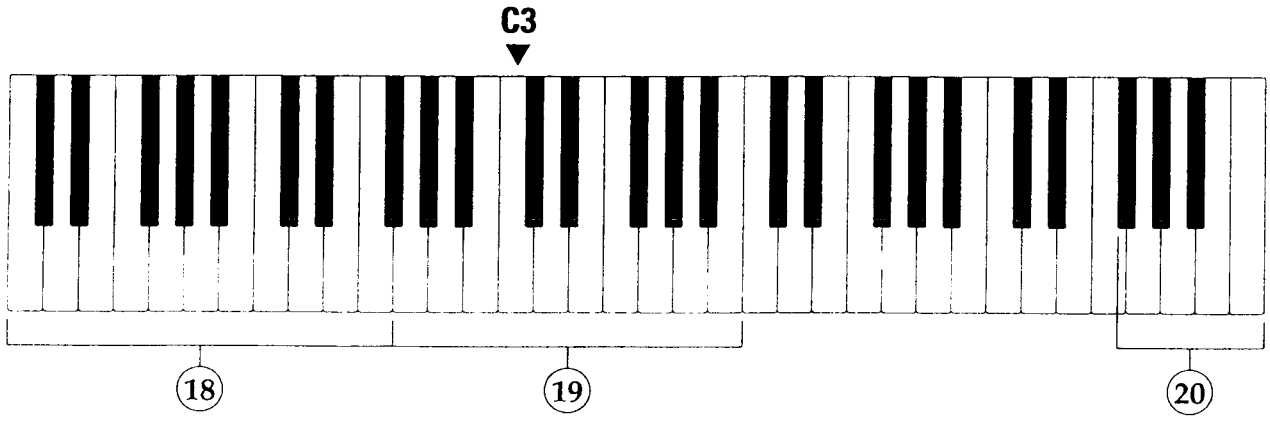
(12) **USER PROGRAM** buttons
These buttons allow users of the FS650 to:

1) create Rhythm and Auto-Accompaniment Patterns. (Basic, Intro, Fill-in, and Ending); and
2) create ONE-FINGER AD-LIB phrases.

(13) **RECORDER** buttons
These buttons allow you to record the songs you write or perform on the FS650.

[Rear Panel]

[Keys]



Overall Diagram and Explanation (Rear panel and Keys)

[Rear Panel]

⑭ **Accompaniment Hold** jack
The jack allows you to use the optional F1 pedal in a different way from above. When connected to the Accompaniment Hold jack, the F1 pedal can be depressed to add variety to Rhythm and Auto-Accompaniments. It can also function in the same manner as the **SYNC/FILL IN** button.

⑮ **Output** jacks
These jacks are used to send the FS650's sound through external speakers or a stereo system.

⑯ **Stereo Headphone** jack
When a stereo headphone are connected to this jack, the sound from the speakers is cut off. This allows you to play the FS650 at night and at other times when you might be concerned about disturbing others.

⑰ **Power Adaptor** jack
This jack is used when connecting a power adaptor (model PS-121 or PS-123, available separately).

[Keys]

⑱ **Lower** keys (C1 ~ F#2)
Used when the chord detection or hand percussion function are selected.

⑲ **ONE FINGER AD-LIB** keys (G2 ~ B3)
Used when the ONE FINGER AD-LIB function is selected.

⑳ **User program** keys (F#5 ~ C6)
Used when making Auto-Accompaniment, or programmable ONE FINGER AD-LIB settings.

Note:

Of course, the keys in the special keyboards named above also function as part of the normal keyboard.

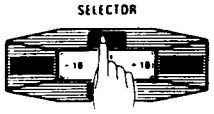
Getting Started on your FS650 Selecting Sounds

1

Check the POWER switch.

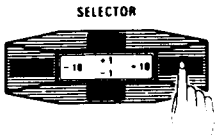
Display reads 001.

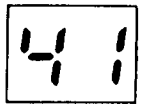
2



Display changes to read 002.

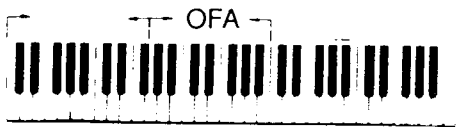
3





Select a sound numbered 41 through 50.

Lower keyboard



OFA means ONE FINGER AD-LIB.

This section will show you how to select and play any of the sounds listed in the *"100 SOUND LIBRARY"* on the FS650's front panel.

1. First, check to be sure that the **POWER** switch is turned ON. The display should be lit, showing the number 01.

   Try pressing one of the keys on the keyboard. You should hear the sound which is numbered 01 (BOW. STRINGS).

2. Next, look at the **SELECTOR** buttons and find the button marked +1. If you press it, the number shown in the display should change to 02.

   When you press one of the keys on the keyboard, you will hear sound number 02 (BOW. CELLO).

   You can use the **SELECTOR** buttons to choose any of the FS650's one hundred sounds quickly and easily. The **+1** button adds one to the number in the display, while the **+10** button adds ten.

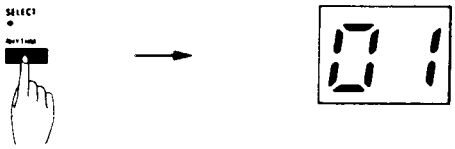
   The **-1** button subtracts one from the number, and the **-10** button subtracts ten. The number shown in the display is the number of the sound currently selected.

3. If you select one of the SPLIT sounds, which are numbered 41 through 50 in the *"100 SOUND LIBRARY,"* you will find that the 19 keys on the left end of the keyboard (the Lower keyboard) produce a different sound from the rest of the keys to their right.

   Also, note that the numbers "wrap around," so that pressing the **+1** button when the display reads 00 will change the display to read 01.

Getting Started with Rhythms

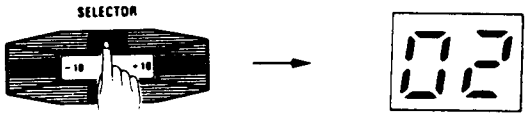
1



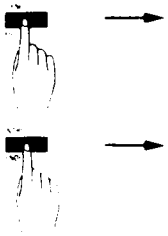
2

Start rhythm.

Then press. . .



3 **4**



A Fill-in Pattern plays.

The Ending Pattern plays, and the rhythm ends.

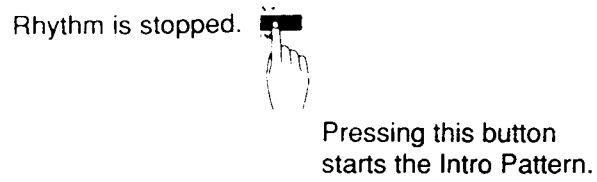
This section will show you how to select and play any of the rhythms listed under the *"50 RHYTHMS"* on the FS650's front panel.

1. Begin by pressing the **RHYTHM** button. The lamp above the switch will light, and the display will change to read 01.
2. If you press the **START/STOP** button at this point, rhythm number 01 (DANCE) will begin to play. Now find the **SELECTOR** buttons and press the **+1** button. The display will change to read 02 and the rhythm will change to number 02 (SOFT FUSION).

   You may use the **SELECTOR** buttons in this way to select any rhythm you desire. The number in the display will change to indicate the number of the rhythm currently selected.
3. Try pressing the **SYNC/FILL IN** button at this point. The rhythm should change to a "Fill-in" pattern suited to the rhythm currently selected. The Fill-in function is very effective when used to add variety within a song.
4. Next, press the **INTRO/ENDING** button. An ending pattern which matches the currently selected rhythm will play, and the rhythm performance will end. You can use this Ending Pattern to bring a song to an Ending. Or, if you want the rhythm to end without the Ending Pattern, you can simply press the **START/STOP** button.

Other Important Rhythm Functions

1



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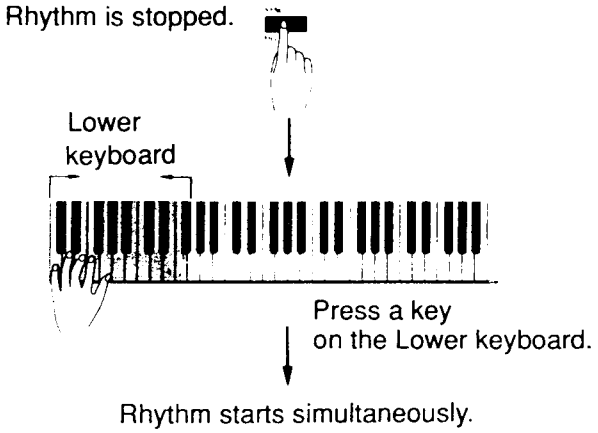

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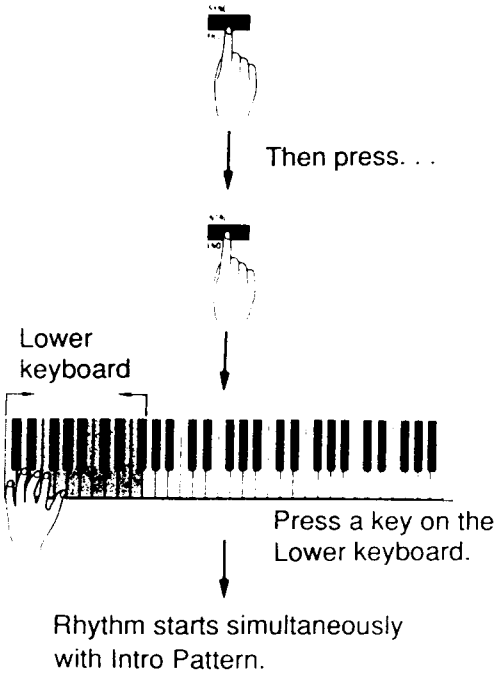


1. If you press the **INTRO/ENDING** button while the rhythm is off, you will hear an Intro Pattern, after which the Basic Pattern for the rhythm selected will begin to play.
2. If you press the **SYNC/FILL IN** button while the rhythm is off, the button functions as a **SYNC** button only, when **SYNC** is pressed the rhythm will begin to play the moment you press a key on the Lower keyboard. The rhythm will synchronize with your touch of the keyboard.
3. If you press the **INTRO/ENDING** button after first pressing the **SYNC/FILL IN** button, the rhythm will begin to play, (starting with the appropriate Intro Pattern), the moment you press one or more of the keys on the Lower keyboard.
4. Try pressing the **INTRO/ENDING** button while the rhythm is playing. In this case, it operates as an **ENDING** button. You will hear an Ending pattern in a few seconds after pressing the button.

Changing Rhythm Tempo

1

1. You can use the **TEMPO** buttons to change the tempo of the rhythm. The **TEMPO ▼** button makes the tempo slower. The **TEMPO ▲** button makes the tempo faster. The longer you hold down each of these buttons, the more the tempo will change. When either of the **TEMPO** buttons are pressed, the display will change to show the current tempo. The small lamp at the bottom of the display will also blink in time with the tempo.

   Pressing either of the **TEMPO** buttons once after changing your rhythm selection will change the tempo to a rate that suits to the new rhythm. The tempo can be adjusted within a range from 01 to 64 beats per minute.

Using Auto-Accompaniment for easy ensemble play

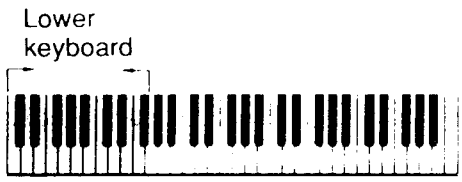
Chords with left hand.

Melody with right hand.

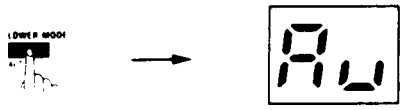
The FS650's Auto-Accompaniment section is one of the most powerful found on any portable keyboard. It has the capability of working in four different "modes". In this Basic Operation section of the manual, however, we will deal only with the first mode called "AUTO 1".

When your FS650 is turned on, it is automatically set to AUTO 1 operation. In AUTO 1 mode, you can play chords with your left hand (which will generate full accompaniment) while playing the melody with your right hand. Let's try the Auto-Accompaniment section in this mode.

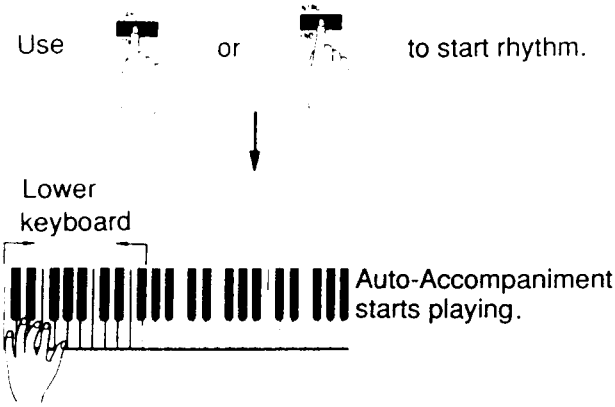
Using Auto-Accompaniment Section: AUTO 1



1



2 **3**



This Auto-Accompaniment mode (AUTO 1) allows you to create a realistic ensemble performance, simply by pressing and holding left hand chords as you play the melody.

The nineteen keys on the left end of the keyboard (which we call the Lower keyboard) are used to play the chords which control the Auto-Accompaniment. Up until now we have used the Lower keyboard as a regular keyboard.

1. First, prepare the Lower keyboard for chord use.

   Find the **LOWER MODE** buttons and press the **AUTO** button. The display will change to read Au.

2. Start the rhythm.

   Select a rhythm using the **RHYTHM** button and the **SELECTOR** buttons. Then, start the rhythm by pressing the **START/STOP** button or the **INTRO/ENDING** button.

3. Using the Lower keyboard to activate Auto-Accompaniment.

   Now, try pressing one or more of the keys on the Lower keyboard. You should hear the Auto-Accompaniment begin to play.

   Try using the **SYNC/FILL IN** button and the **INTRO/ENDING** button. The tempo of the Auto-Accompaniment can be controlled using the **TEMPO** buttons.

Using ONE FINGER AD-LIB for an ad-lib performance

By now you've become accomplished with the Auto-Accompaniment function of the FS650. But you may be wondering what you can do to spice up the melody a bit. Well, the ONE FINGER AD-LIB function is just for you! This feature separates KAWAI keyboards from all others.

1. What is ONE FINGER AD-LIB?

ONE FINGER AD-LIB is a patented feature which allows anyone, any level of musical ability, to sound like a Pro. With the touch of a finger, you can play hundred of impressive ad-lib melodies with full Auto-Accompaniment with chord progression. It's great fun!

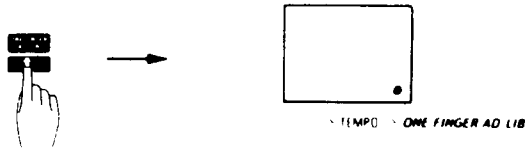
The ONE FINGER AD-LIB phrases are determined by rhythm you select. For example, there are funky ad-lib phrases for rhythm number 06 (SOUL FUNK), and some exciting rock'n roll phrases that go well with number 14 (R&R). There are seventeen ONE FINGER AD-LIB phrases set for each of the FS650's fifty rhythms: a total of 850 phrases in all!

2. How does ONE FINGER AD-LIB work?

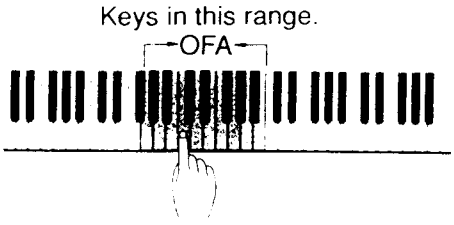
a) Use the **RHYTHM** button and the **SELECTOR** buttons to select a rhythm. Next, press the **ONE FINGER AD-LIB** button. The small dot lamp on the lower right side of the display will light up.

b) Now, press and hold down one of the keys in the ONE FINGER AD-LIB section of the keyboard (shown in the drawing at left). By holding down a single key, you can play an entire ad-lib phrase! Try other ONE FINGER AD-LIB keys. Note that each key plays a different phrase.

2-a



2-b



Using ONE FINGER AD-LIB for an ad-lib performance

c) Adding Rhythm and Auto-Accompaniment
Next, press the **LOWER MODE AUTO** button. The display should change briefly to read Au.

Start the Rhythm using the **INTRO/ENDING** button or the **START/STOP** button. The Rhythm and Auto-Accompaniment should begin to play. Listen closely! Notice that the Auto-Accompaniment chords are changing automatically. The FS650 has been programmed so that each Rhythm is accompanied by an authentic sounding chord progression that plays automatically.

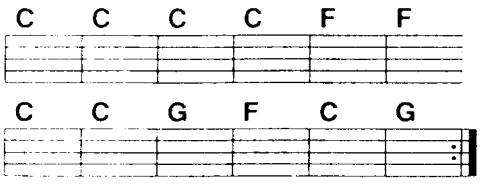
d) Now press one of the keys in the ONE FINGER AD-LIB section of keyboard. The ad-lib phrase will play. If you hold the AD-LIB key down, you'll notice that the phrase changes automatically with the chord progression!

e) If you decide that you'd like to change the preseted chord progression, play any chord on the Lower keyboard. This will override preseted progression. The ONE FINGER AD-LIB phrase will change to match your chords.

f) To return to the preseted chord progression, press the **ONE FINGER AD-LIB** button twice.

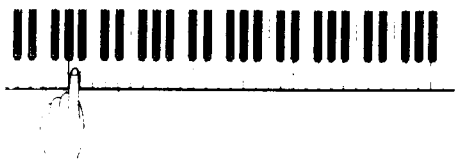
A note about the ONE FINGER AD-LIB chord progressions.

When you start the Auto-Accompaniment with the ONE FINGER AD-LIB function turned ON, the chord progression that plays is in the key of C. For example, the progression for rhythm number 16 (50'S ROCK) is as follows:

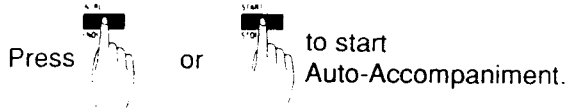


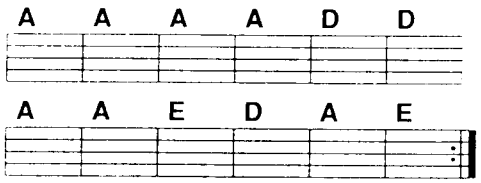
Using ONE FINGER AD-LIB for an ad-lib performance

1-2

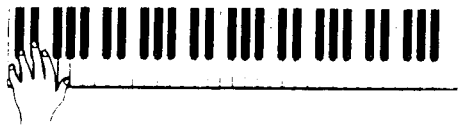


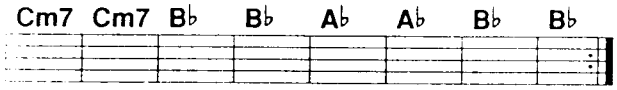
1-3





2-3





Changing Keys

1. Those of you who won't be happy unless the chord progression for 50'S ROCK is in the key of "A" should perform the following operation (after stopping the rhythm for a moment):

   (1) Check that the **ONE FINGER AD-LIB** button and the **LOWER MODE AUTO** button have both been turned ON.

   (2) Before starting the rhythm, press the A key shown in the illustration at left.

   (3) Then press the **INTRO/ENDING** button or the **START/STOP** button to start the Rhythm and Auto-Accompaniment. The chord progression should now be as shown left.

2. Some of you might be happier if the chord progression for 50'S ROCK were in a minor key. To do this, you can perform an operation like the one described below (again, you should stop the rhythm first):

   (1) Check that the **ONE FINGER AD-LIB** button and the **LOWER MODE AUTO** button have both been turned ON.

   (2) Play a Cm chord as shown in the illustration at left.

   (3) Then press the **INTRO/ENDING** button or the **START/STOP** button to start the Rhythm and Auto-Accompaniment. The chord progression should now be as shown left.

There are two ONE FINGER AD-LIB chord progressions for each Rhythm -- one in a major key and one in a minor key. If you would prefer the chord progression to play in the key of Am, just perform the operation above playing an Am chord instead of the Cm chord we used as an example.

Now select different Rhythms and begin exploring the 850 ONE FINGER AD-LIB phrases built into the FS650!

The Mixer Section

So far we have covered the basics of the FS650's Rhythm, Auto-Accompaniment, and ONE FINGER AD-LIB functions. This section will show you how to use the mixer section.

The volume of each part can be adjusted using the **VOLUME** buttons. Volumes may be set to any of sixteen levels, which are numbered 0 through 15. The number of each volume setting will appear briefly on the display each time a volume button is pressed.

1. **MASTER VOLUME** buttons
   These buttons control the volume of the FS650 in an overall fashion, including the volume of the Rhythm, Auto-Accompaniment, and ONE FINGER AD-LIB parts, as well as that of your own performance.
2. **ACC. VOLUME** buttons
   These buttons control the volume of the Rhythm and Auto-Accompaniment.

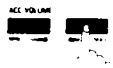
To eliminate the volume of any part:

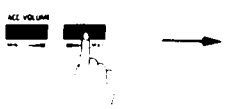
Pressing both the left and right **VOLUME** buttons simultaneously for any one part will turn the volume for that part OFF.

When the volume of a part has been turned OFF, you can press the left-side button to return the volume for that part to the level it was set at before it was turned OFF.

Pressing the right-side button will raise the volume level, beginning from zero.

After turning OFF
The Volume goes back as before turning OFF, when the left button is pressed.

After turning OFF 
The Volume goes up from 0, when the right button is pressed.



When you press a VOLUME button. . .

the current volume is displayed.

Using the Real Time RECORDER

To record your performances

This section will show you how to record the songs you perform using the FS650's many functions.

Here are the steps:

1. First, set up the FS650 for your performance.

   Begin by select the Sound, Rhythm, and Lower keyboard mode settings that you will require to perform your song.

2. Press the **REC/END** button. You will hear the sound of the metronome.

3. Start playing! Everything you play including ONE FINGER AD-LIB phrases, and changes in Sounds or Rhythms will be recorded ***as you played it***. That's what we mean by "Real Time". What you play is what you get.

4. When you are done with your song, press the **REC/END** button once more. The recording will end.

5. Now let's try playing the song back. Press the **PLAY/STOP** button. The song you just recorded should begin to play. If you would like to stop the performance without listening through to the end, just press the **PLAY/STOP** button once more.

2

Press and the metronome will begin.

4

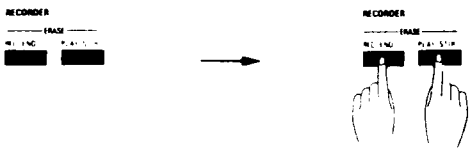
Press to stop recording.

5

Press to start playback.

Press to stop playback.

Using the Real Time RECORDER



6. If you would like to record over a song which has already been recorded, it is necessary to erase that song first. If, for example, you would like to record over again, you might try pressing the **REC/END** button; but you would find that the metronome will not start. (This is to prevent you from accidentally recording over a song which you would like to keep!)

   In order to erase the song, press the **REC/END** button and the **PLAY/STOP** button simultaneously. The song will be erased instantly.

   Note:

   When recording song using the RECORDER, the tempo information will not be recorded. This allows you to record songs at a slow tempo and play them back at a fast tempo.

Congratulations!

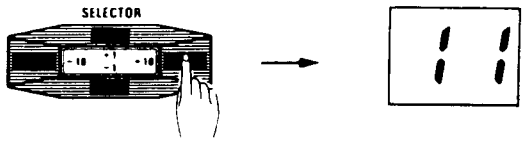
You've finished learning of the Basic Operations.

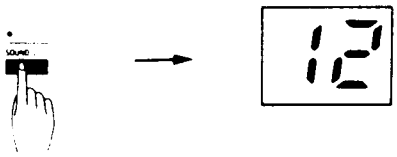
Have more fun to learn the Advanced Operation.

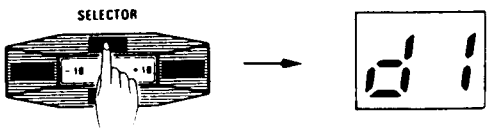
This completes the Basic Operation section of the FS650 instruction manual.
We trust that this first section has given you a good basic knowledge of FS650's powerful feature.

But you've only just begun to explore the full capability of the FS650!
The Advanced Operation section will help you to learn how much more can be done with this powerful instrument.

Advanced Use of Sounds: Combining Two Sounds







As a first step in this Advanced Operation section, let's try combining two of the sounds listed in the FS650's *"100 SOUND LIBRARY,"* for a rich DUAL sound effect.

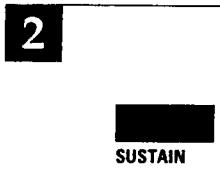
1. First, select any sound you like using the **SELECTOR** buttons. As an example, we will choose sound number 11 (PIANO 1).
2. Next, press the **SOUND 2** button. The lamp above the button will light up. Now, select another sound. (We will choose number 12 (PIANO 2) for our example.)
3. Now press both the **SOUND 1** button and the **SOUND 2** button ***simultaneously***. The lamps above these buttons should start blinking, and the display should change to read d0.
   If you press one of the keys on the keyboard, you will hear the combination of sounds 11 and 12, PIANO 1 and PIANO 2.

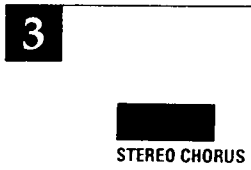
— What does d0 mean? —

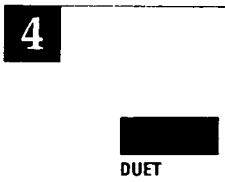
When two sounds are played at once, varying the pitch of the sounds slightly with respect to each other makes the combined sound much richer.
This varying of the pitch of two sounds is called "Detuning." The FS650 allows you to detune two sounds when combining them using the DUAL effect. The "d" in the display therefore stands for "Detune," and the "0" following it represents the difference in pitch between SOUND 1 and SOUND 2.

4. Press the **+1** button one time. The display should change to read d1. Now, when you press a key on the keyboard, you will hear a slightly richer sound. You can use the **SELECTOR** buttons to set a detune value of 0 to 7. The higher the number is, the greater the difference in pitch becomes. When our PIANO 1/PIANO 2 combination is set to a detune value of 7 (d7), the result is a "honkytonk" sounding piano. Using the DUAL effect with 7 levels of detune, you have up to 32,400 different DUAL sound variations available.

Advanced Use of Sounds: Adding Effects







The FS650 has a variety of effects which can add realism or excitement to your selected sound.

1. **Pitch bend:**
   Pitch bend is an effect by which the pitch of a sound is bent smoothly upward or downward. It is useful for copying the sound of a guitar being played with a "Choking" technique. Try pressing the **BEND DOWN** button while holding down one of the keys on the keyboard. The pitch of the sound should bend smoothly down a single step, then return to its original pitch when the **BEND DOWN** button is released. In a similar way, the **BEND UP** button bends the pitch of a note smoothly upward a single step.

2. **Sustain:**
   Sustain is an effect which lets notes "Sound" for a longer duration. The sustain effect is automatically on when the **POWER** switch of the FS650 is turned on. Pressing the **SUSTAIN** button cancels the effect. Pressing it a second time will turn the effect back on.

3. **Stereo chorus:**
   Pressing the **STEREO CHORUS** button activates an effect which adds a deep stereo richness to the currently selected sound. Pressing the button a second time cancels the effect.

4. **Duet:**
   When the **DUET** button is pressed, the FS650 will add a harmonizing note to each melody note that is played on the keyboard, so you can enjoy a duet performance while playing only one melody note at a time. This function is extremely effective when used together with the Auto-Accompaniment function. Pressing the button a second time turns the effect off.

Notes:

1. When you choose the DUAL sound effect, the stereo chorus effect, or the duet effect, the number of notes that can be heard at once will be reduced.
2. The DUAL sound effect is not possible when one of the SPLIT sounds, numbered 41 through 50, is chosen as SOUND 1. Also, a SPLIT sound cannot be selected as SOUND 2 when using the DUAL sound effect.
3. If you press the **STEREO CHORUS** button while using the DUAL sound effect, the stereo chorus effect will be applied only to the sound selected as SOUND 1.
4. If you press the **DUET** button while using the DUAL sound effect, the harmonizing note will be SOUND 1.

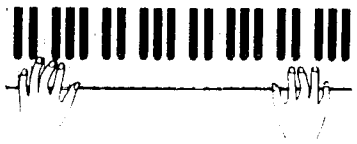
Advanced Use of Auto-Accompaniment Section:

The FS650's Auto-Accompaniment section is one of the most powerful found on any portable keyboard. It has the capability of working in four different modes. In the Basic Operation section, we discussed only the first mode, AUTO 1, which is the standard operational mode for most portable keyboards. In this Advanced Operation section, we will introduce the remaining three modes: AUTO 2, AUTO 3, and AUTO 4.

Having four different Auto-Accompaniment modes allows the FS650 to be enjoyed by people at all levels of musical of musical ability -- from beginners to experienced professionals.

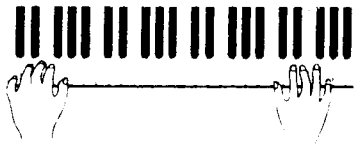
Let's outline the four modes of Auto-Accompaniment offered by the FS650:

1



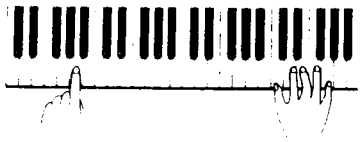
Chords with left hand. Melody with right hand.

2



Base with left hand. Chords and Melody with right hand.

4



Chords with left hand. Melody with right hand.

1. **AUTO 1:**
   Lets you play single-finger or finger chords with your left hand while playing the melody with your right. Your left hand chords trigger the Auto-Accompaniment. For a review of AUTO 1 operation, see the Basic Operation section.
2. **AUTO 2:**
   Lets you play bass line with your left hand while playing chords and melody with your right. Standard Auto-Accompaniment Chords will play -- but are triggered by the chords you play in your ***right hand***.
3. **AUTO 3:**
   Great for the persons who want to sing the melody as they play an Auto-Accompaniment! Like AUTO 2, you can play a bass line with your left hand while playing chords and melody with your right. With AUTO 3, however, the standard Auto-Accompaniment Chords do ***not*** play. Rather, the chords you play with your right hand (any chords) become part of the Auto-Accompaniment.
4. **AUTO 4:**
   The mode to use when you're not sure what chords to play. AUTO 4 has a preset chord sequence for each rhythm (the same sequence used with ONE FINGER AD-LIB). You can play through the entire chord sequence by playing successive notes (in order starting with C1) in the Lower keyboard with your left hand.

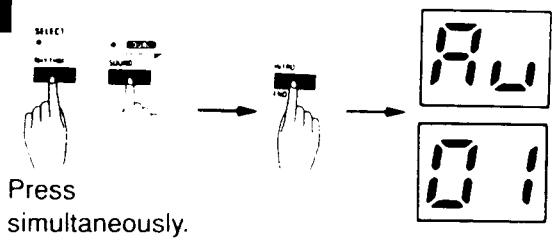
Let's try using these three new Auto-Accompaniment modes, beginning with AUTO 2.

Note:

ONE FINGER AD-LIB is not operational when the FS650 is in AUTO 2 or AUTO 3.

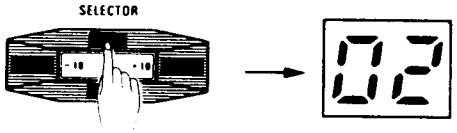
Explanation of the AUTO 2

1

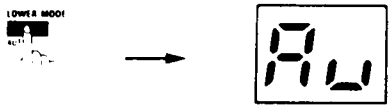


Press simultaneously.

2



3



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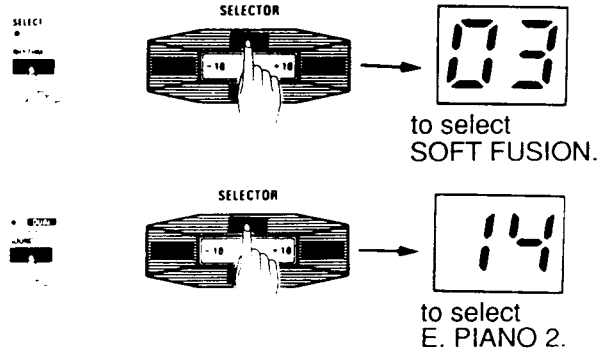
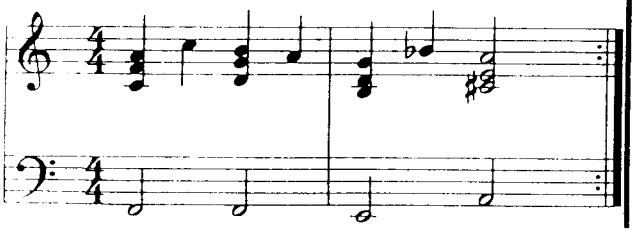


to select SOFT FUSION.

to select E. PIANO 2.

5

AUTO 2 is an advanced form of Auto-Accompaniment which lets you play a bass line with your left hand while your right hand plays the chords and melody.

How is AUTO 2 different from AUTO 1? In AUTO 1, the Auto-Accompaniment Chords are triggered by the chords you play in your ***left hand***. In AUTO 2, your ***right hand*** notes trigger the Auto-Accompaniment Chords.

■ Why is AUTO 2 valuable? There are two primary reasons:

1. Many people feel more comfortable playing chords with their right hand rather than their left. AUTO 2 suits that playing style better than AUTO 1 does.
2. If you play the FS650 as you would normally play a piano while using AUTO 2, the Auto-Accompaniment will follow the chords of your performance.

Let's see how AUTO 2 works:

1. With the rhythm stopped, press both the **RHYTHM** button and **SOUND 1** button simultaneously, then press the **INTRO/ENDING** button. The display should begin to flash alternately between Au and the number 01. This shows that the Auto-Accompaniment is currently set to AUTO 1.
2. Press the **SELECTOR +1** button to change the number in the display to 02.
3. Press **LOWER MODE AUTO** button. The display should quickly flash Au.
4. Select a rhythm using the **RHYTHM** button and the **SELECTOR** buttons. This time try Rhythm pattern number 02 (SOFT FUSION). Also, select sound number 14 (E. PIANO 2) using the **SOUND 1** button and the **SELECTOR** buttons.
5. Press the **START/STOP** button. The rhythm will start. Try playing the music at left along with the rhythm.

Explanation of the AUTO 2

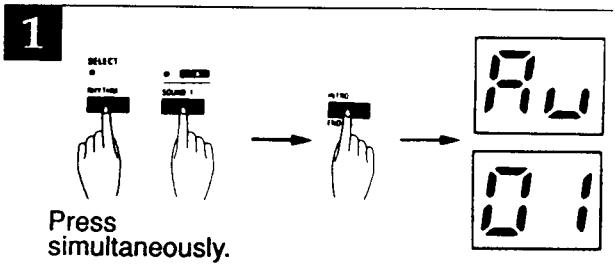
Can you hear how AUTO 2 allows the FS650 to follow your playing?

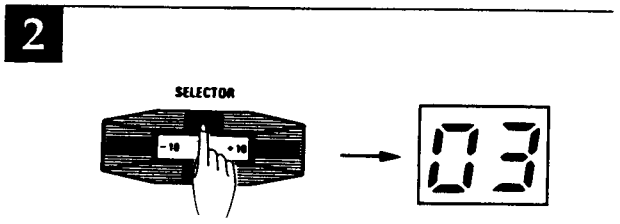
Now let's go on to the next Auto-Accompaniment mode -- AUTO 3.

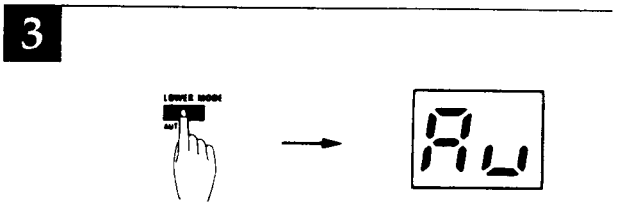
Note: Here's some playing information about AUTO 2

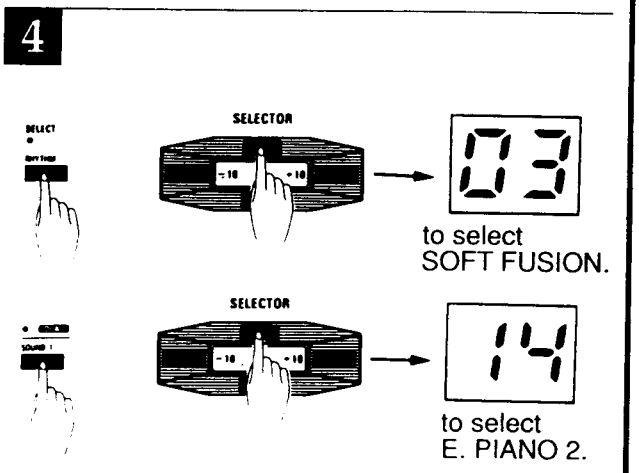
1. The Auto-Accompaniment changes when you press three or more keys (total) on the Lower or Upper keyboards.
2. When you press only one key on the Lower keyboard, only the Auto-Accompaniment ***bass*** part will change.
3. If you press more than one key on the Lower keyboard, the bass part will respond to the *lowest* key pressed.
4. When only keys on the Upper keyboard are pressed, pressing three or more keys will cause the Auto-Accompaniment to change.
5. When AUTO 2 is activated, both ONE FINGER AD-LIB and DUET will not function.

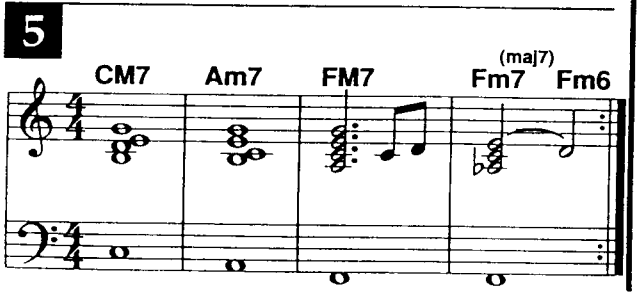
Explanation of the AUTO 3











The key aspect of AUTO 3 is "freedom in choosing chords."

Like AUTO 2, this third Auto-Accompaniment mode lets you play a bass line with your left hand while you play chords and melody with your right hand. AUTO 3 is different in that standard Auto-Accompaniment Chords do ***not*** play. Rather, the chords that you play with your right hand actually become ***part of the Auto-Accompaniment.***

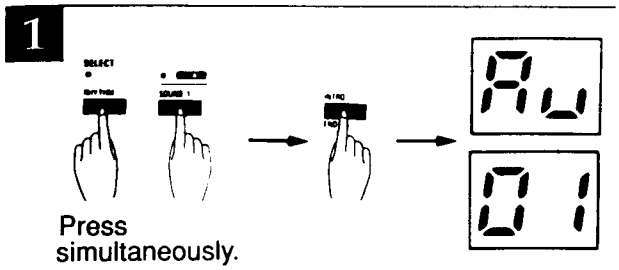
Furthermore, with AUTO 2, you are limited to only the chord forms that the FS650 can play as part of the Auto-Accompaniment. With AUTO 3 ***any*** chord form you play can become part of the Auto-Accompaniment. You have total freedom in using chords.

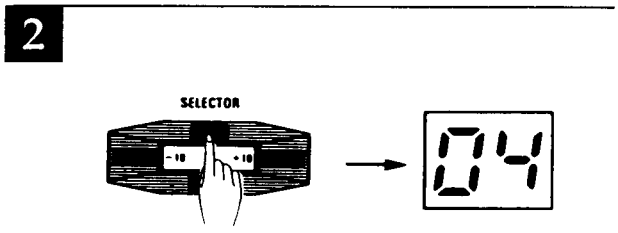
Let's try AUTO 3:

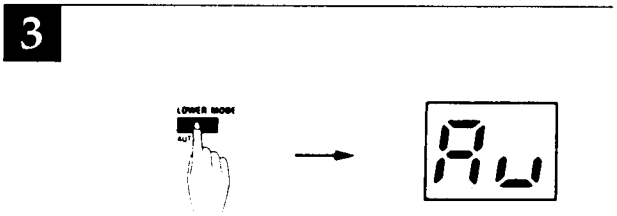
1. With the rhythm stopped, press both the **RHYTHM** button and **SOUND 1** button simultaneously, then press the **INTRO/ENDING** button. The display should begin to flash alternately between "AU" and the number 01 (or 02).
2. Use the **+1 SELECTOR** button to change the number in the display to 03. This indicates that you have selected AUTO 3.
3. Press the **LOWER MODE AUTO** button until the display briefly flashes "AU".
4. Use the **RHYTHM** button and the **SELECTOR** buttons to choose Rhythm number 02 (SOFT FUSION) once again. Also, select sound number 14 (E. PIANO 2) using the **SOUND 1** button and the **SELECTOR** buttons. (You may have already selected this panel setting from our AUTO 2 example).
5. Press the **START/STOP** button. The rhythm will start. Try playing the music at left along with the rhythm.
6. Can you hear how the chords you play with the right hand become part of the Auto-Accompaniment? Try playing the music to one of your favorite songs and sing the melody. You'll like the result! Plus, AUTO 3 will allow the FS650 to follow every chord you play.

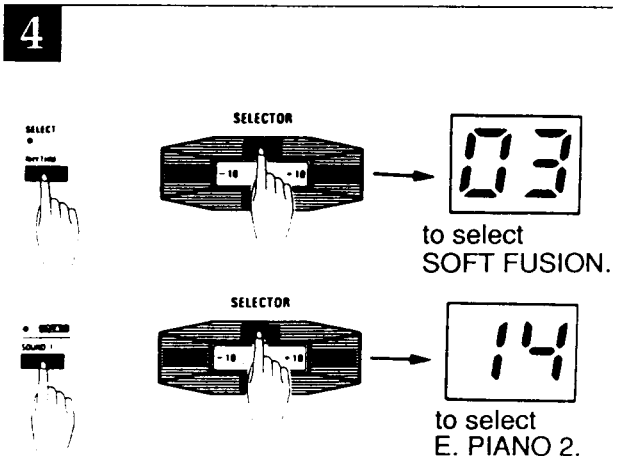
Note: The playing information about AUTO 3 is the same as that of AUTO 2. Please refer to page A – 5.

Explanation of the AUTO 4









AUTO 4 is the best Auto-Accompaniment mode when you're not sure what chords to play. The FS650 has a preset chord sequence (the same one used with ONE FINGER AD-LIB) for each of the *50 Rhythms*. You activate the preset sequence by pressing the notes of the Lower keyboard (beginning with C1) in successive order. Here are the steps:

1. With the rhythm stopped, press both the **RHYTHM** button and **SOUND 1** button simultaneously, then press the **INTRO/ENDING** button. The display should begin to flash alternately between "AU" and the number 01 (or 02 or 03).
2. Press the **+1 SELECTOR** button to change the number in the display to 04. This indicates that the FS650 is in AUTO 4.
3. Press the **LOWER MODE AUTO** button. The display should briefly change to read "AU".
4. Select Rhythm number 02 (SOFT FUSION) and sound number 14 (E. PIANO 2) as you did in the previous pages.
5. Press the **SYNC/FILL IN** button. The rhythm will not start until you press a key in the Lower keyboard.
6. Now, count "ONE. . . TWO. . . THREE. . . FOUR" at the same tempo as the blinking red "Tempo" dot in the display. These are the "Beats" of the Auto-Accompaniment. Starting with the lowest "C" (called C1), hold each note of the Lower keyboard in successive order (C. . . C#. . . D. . . D#) for four beats. You'll hear the chord sequence change as you move up the chromatic scale.

With AUTO 4, you won't have to worry about chords. It lets you concentrate on making great melodies with your right hand.

Introducing Accompaniment Hold

Accompaniment Hold is an exciting new feature from KAWAI that allows you to control the rhythmic placement of Accompaniment Chords while you play. To operate Accompaniment Hold, you'll need to purchase a foot switch (model F1, sold separately).

- Connect the F1 foot switch to the Accompaniment Hold jack on the rear panel.
- Whenever you depress the foot switch pedal, the bass drum, open hi hat, bass, and chord will play in unison.
- If you hold the pedal down, the bass and chord sounds will be held until you release the pedal.

When will the Auto-Accompaniment Hold feature be most useful?

1. When you want to add rhythmic variety to your accompaniment by holding some chords and letting others play normally;
2. When you want to add syncopation to an accompaniment;

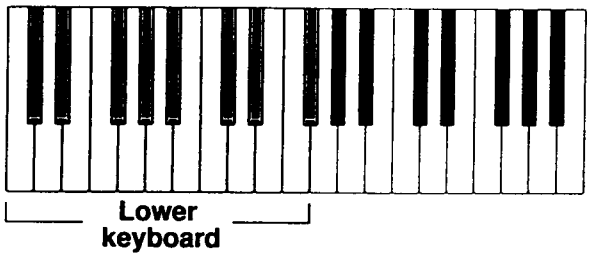
   and

3. When you want to add accents to an accompaniment.

Try Accompaniment Hold with several different Auto-Accompaniment to see how effectively it can and interest and excitement to your performances.

Important:
Before moving on to the next section, press both the **RHYTHM** button and the **SOUND 1** button simultaneously, then press the **INTRO/ENDING** button and use the **SELECTOR** buttons to return to AUTO 1.

Using Hand Percussion



DRUM Assignment

Key	Instrument name
C1	Bass Drum
C#1	Rim Shot
D1	Low Snare
D#1	Hi Clap
E1	Hi Snare
F1	Synthe Percussion 1
F#1	Hi-hat Close
G1	Low Tam
G#1	Low Clap
A1	Low Conga
A#1	Hi-hat Open
B1	Mid Tam
C2	Hi Conga
C#2	Clash Cymbal
D2	Hi Tam
D#2	Ride Cymbal
E2	Low Cymbal
F2	Synthe Percussion 2
F#2	Small Cymbal

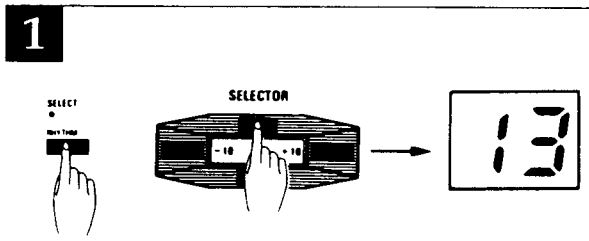
In addition to its use with Auto-Accompaniment, the Lower keyboard can also be used to play percussion instruments.

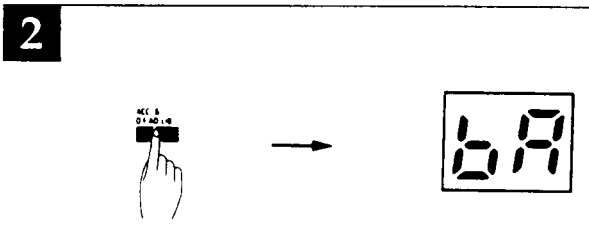
1. First, you must set the lower keyboard to play hand percussion. Press the **LOWER MODE DRUM** button . The letters dr will appear in the display for a brief moment.

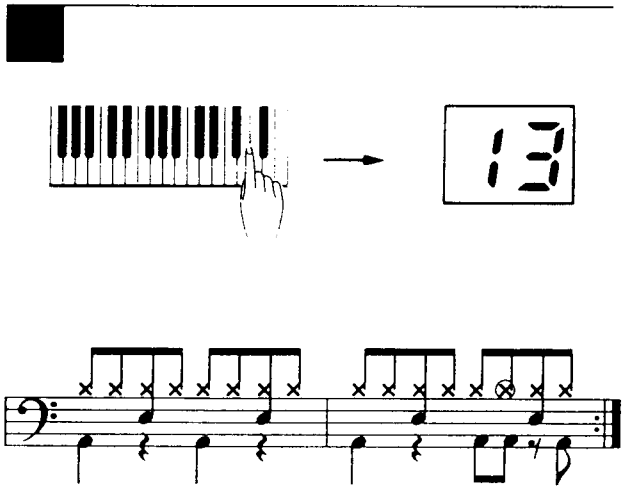
   Now, when you press one of the keys on the Lower keyboard, you will hear the sound of the instrument pictured above that key. This feature allows you to enjoy playing simple drum solos in time with the rhythm. Of course, these drum sounds can be played even when the rhythm is turned off. The drum sounds are assigned to the keys on the Lower keyboard as shown in the chart left.

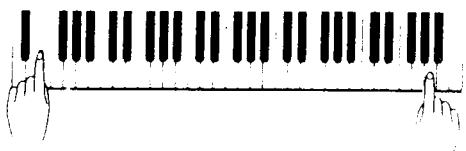
   Note that if you press the **LOWER MODE DRUM** button once more, the display will briefly change to read no for Normal, and the Lower keyboard will function as a Normal keyboard once again.

Creating Rhythm and Auto-Accompaniment Patterns:









Have you ever wished you could take your own musical ideas and put together a dynamite Auto-Accompaniment of your own? With the FS650, you can!

Using the programming functions of the FS650, it is possible for you to create Intro, Fill in, Ending, and Basic patterns for each of the FS650's Auto-Accompaniment parts: rhythm, bass, and chords. You can build these patterns from scratch, or you can alter one or more elements (chord, bass, drums) of a preset pattern. This is an extremely powerful feature that offers you tremendous creative freedom!

As an example, let's try making a few changes to Rhythm number 13 (POP ROCK) to develop a new pattern.

1. Use the **RHYTHM** button and the **SELECTOR** buttons to select the POP ROCK pattern (number 13).
2. Let's begin by changing the Basic pattern.

   With the rhythm turned OFF, press the **USER PROGRAM ACC & O.F. AD-LIB** button. The display will change to read bA, which is short for "Basic." This indicates that the Basic pattern has been selected.

- **First, let's change the Rhythm pattern**

  Find the USER PROGRAM keys at the right end of the keyboard which are identified by ACC. above the keys (F#5 to A5). These are the USER PROGRAM keys for changing accompaniments.

  Press the G#5 key. The display should change to show the number of the POP ROCK pattern (that is, number 13).

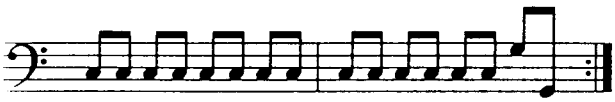
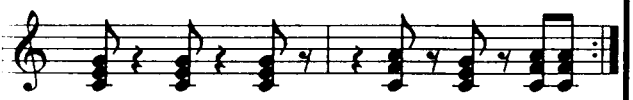
  The basic Rhythm pattern for the POP ROCK pattern is at left:

  Let's try adding the high clap sound on top of the snare drum. Just press the D#1 key, which controls the high clap sound, in time with the snare drum.

  Feel free to add other rhythm sounds as you like.

  If you make a mistake with one sound for example, (high clap), use the RHYTHM ERASE key (A5) to remove the mistake. Hold down the RHYTHM ERASE key (A5) while you press the "high clap" key (D#1). All high clap sounds will be instantly erased.

Creating Basic Patterns



- **Next, let's change the bass part**
  If you're finished with the Rhythm pattern, let's move on to the bass pattern. Press the G5 key (labelled "BASS CLEAR") on the keyboard twice. The bass pattern should disappear, and the display will change to show the number 58. This indicates that sound number 58 (E. BASS) is the sound being used for the bass part in this pattern.

  Let's create a bass part like the one given left. Use the keys from C1 to B4 to input the bass part. If you want to use a sound other than E. BASS for the bass part, select the sound you prefer using the **SELECTOR** buttons to change the sound number shown in the display. You should also use the **ACC. VOLUME** buttons to set the volume of the bass part at this time.

- **Last, let's change the Chord part**
  Press the F#5 key. The number 11 should appear in the display. This indicates that sound number 11 (PIANO 1) is being used for the Chord part.

  The basic Chord part for the POP ROCK pattern is as shown left. Let's try adding the notes shown left to the end of the second measure. Use the keys from C1 to B4 to input the Chord part. If you want to use a sound other than PIANO 1 for the Chord part, select the sound you want using the **SELECTOR** buttons to change the sound number shown in the display. You should also use the **ACC. VOLUME** buttons to set the volume of the Chord part at this time.

  - Thus far, we have changed each of the elements (rhythm, bass, chord) of the POP ROCK Basic pattern --- but we have not yet stored the revised pattern in the FS650's user memory. Before we cover the procedure for storing, let's change the Fill in and Intro/Ending patterns as well.

  Note:

  As you're probably observed by now, pressing the ACC. USER PROGRAM keys (F#5, G5, G#5) once lets you ***add*** to that portion of the existing pattern. Pressing the same key again ***erases*** that portion of the pattern allowing you to rebuild it from scratch.

Creating Fill in and Intro/Ending Patterns

1

→ The Fill in Pattern plays.

2

Press once. . .

→ . . .and the Intro Pattern plays.

Press again. . .

→ . . .and the Ending Pattern plays.

Fill in and Intro/Ending patterns can also be changed using the same procedure that you used to changed the Basic pattern in the previous page.

1. Let's try changing the Fill in pattern.

   Press the **SYNC/FILL IN** button. You should hear the POP ROCK Fill in pattern. Try to change this Fill in pattern to suit your taste, using the same procedure that you used to change the Basic pattern.

2. Last, let's change the Intro and Ending patterns.

   If you press the **INTRO/ENDING** button, you will hear the POP ROCK Intro pattern. Press it once more, and you will hear the Ending patterns. Go ahead and edit these patterns as you like, using the same procedure as before.

Notes:

1. The tempo you use when creating Auto-Accompaniment patterns will not be memorized! When creating difficult patterns, feel free to slow down the tempo for input, then speed it up again when performing.
2. The same bass and chord sounds will be used for all four pattern types (Basic, Intro, Fill in, and Ending) of a single Auto-Accompaniment pattern. The last sounds you choose for the bass and Chord parts are the ones that will be memorized when you store the pattern. For example, if you had chosen E. BASS for the bass part sound when creating the Basic pattern, but later changed it to A. BASS when creating the Ending pattern, then A. BASS will be memorized as the bass part sound for all four of the patterns. Note also that the SPLIT sounds, those numbered 41 through 50, cannot be chosen as the bass or Chord part sounds.

Creating Fill in and Intro/Ending Patterns

3

3. If you incorrectly enter one or more notes while creating any part of the Auto-Accompaniment pattern, just press the CLEAR key for that part and all of the notes that you input will be erased. (For example, if you press the F#5 key while creating the bass part for a pattern, the entire bass line will disappear.) You can use the RHYTHM ERASE key to remove individual rhythm sounds from a Rhythm pattern. (For example, to remove only the closed hi-hat sound from a Rhythm part, hold down the A5 key and press the F#1 key, which controls the closed hi-hat sound. That sound will be removed from the Rhythm pattern.)

4. As mentioned in an earlier note, the CLEAR key for each part operates in two ways. When pressed ***once***, the original pattern for that part remains unchanged and you can actually ***add*** notes to the part. When you press the CLEAR key a second time, all the notes for that part will be erased --- allowing you to build an entirely new part from scratch. If you want to change the original pattern to something entirely different, however, press the CLEAR key two times to erase the entire part.

Storing the Newly Created Patterns

Now that we're create an entirely new pattern, let's store it in the FS650's user memory using the following procedure.

Storing pattern

Press the **START/STOP** button and the pattern you just created will be stored as pattern number 50 (USER). Try using the **RHYTHM** button and the **SELECTOR** buttons to select this pattern.

If you press a key, you should hear the pattern you just created.

Programmable ONE FINGER AD-LIB: Creating Phrase

With the FS650's new programmable ONE FINGER AD-LIB capability, you have the power to create up to 17 different ONE FINGER AD-LIB phrases of your own. Here's how:

1. Begin by choosing a rhythm using the **RHYTHM** button and the **SELECTOR** buttons.

   Then, press the **ACC & O.F. AD-LIB** button. The lamp above that button will light up. Next, press the **ONE FINGER AD-LIB** button. The letters Ad, which are short for "Ad-lib," will appear in the display. (You can produce the same results by pressing the A#5, B5, or C6 key on the keyboard.)

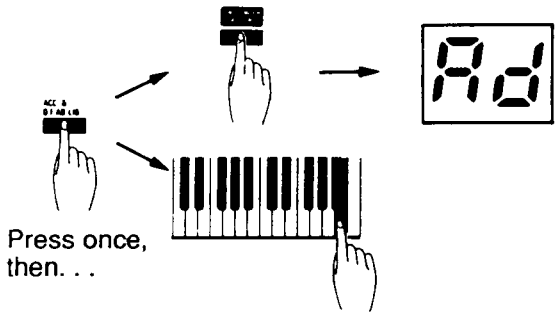
   The Ad-lib phrase for the G2 key should also begin to play.

2. Select the phrase which you want to modify by pressing the key for that phrase in the ONE FINGER AD-LIB section of the keyboard.

   The Ad-lib phrase you're selected will begin to play.

   The sound number for that phrase will be shown in the display. When you're ready to erase the phrase you're selected, press the C6 key (PHRASE CLEAR) and that phrase will disappear.

1



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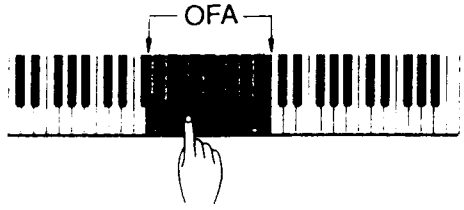
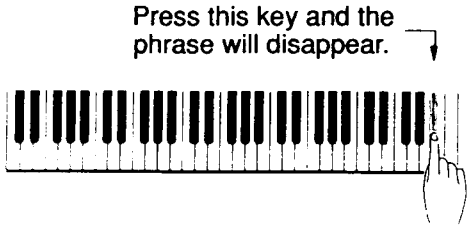
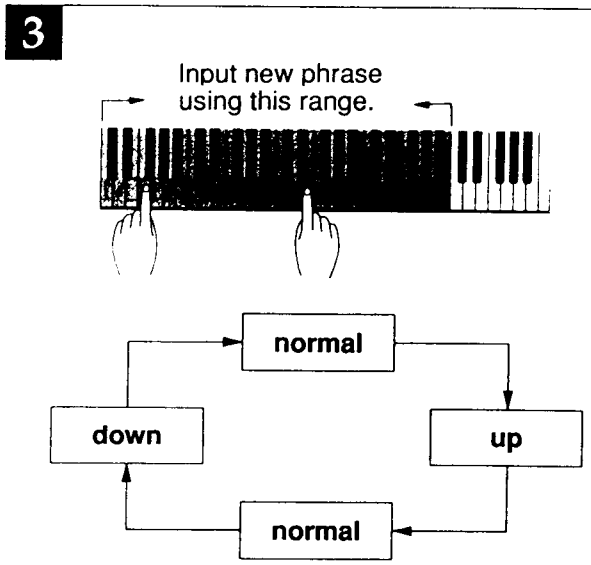




Programmable ONE FINGER AD-LIB: Creating Phrase



3. Inputting the new phrase.

   Use the keys from C1 to B4 to input the new phrase.

   If you find that this range isn't high or low enough to play the Ad-lib phrase you have in mind, press the B5 (OCTAVE SHIFT) key. This key can be used to shift the range played by the keys from C1 to B4 up or down an octave, as shown in the diagram left.

   Pressing the OCTAVE SHIFT key one time causes the keyboard to shift ***up*** one octave. Pressing a second time restores the keyboard to the normal pitch.
   Pressing the OCTAVE SHIFT key a third time causes the keyboard to shift ***down*** one octave. Pressing a fourth time restores the keyboard to the normal pitch.

   You can also use the **MASTER VOLUME** buttons to set the volume of the Ad-lib phrase which will be memorized when you store the phrase.

4. Inputting additional Ad-Lib phrases.

   Suppose you want to input a second Ad-Lib phrase. To do this, make sure that your first customized Ad-Lib phrase (from Step 3 above) is finished. Now, press the POINT SELECT key (A# 5). This tells the FS650 that you are done with the current phrase.

   Now, repeat Steps 2 and 3 above to input a new Ad-Lib phrase. When you are done with this second phrase, press the POINT SELECT key again. You can continue this process until all 17 Ad-Lib keys have been programmed with your own customized phrases.

Programmable ONE FINGER AD-LIB: Storing Phrase

Now use the **SELECTOR** buttons to select a voice for the phrase. The length of a ONE FINGER AD-LIB phrase is limited to one measure. You can change any number of ONE FINGER AD-LIB phrases, for a given rhythm --- up to seventeen for each Rhythm pattern. When you're finished changing the phrases, you can store them for future use.

Storing ONE FINGER AD-LIB phrases

Press the **START/STOP** button. The pattern will stop and the pattern you just created will be stored as pattern number 50 (USER). Try using the **RHYTHM** button and the **SELECTOR** buttons to select this pattern.

Make sure that the **ONE FINGER AD-LIB** button and the **LOWER MODE AUTO** button are in the ON position. Press **START/STOP** button. When you press the ONE FINGER AD-LIB key on which you created the new phrase, you should hear your newly created phrase.

Programmable ONE FINGER AD-LIB: Storing Phrase

Notes:

1. The patterns listed as USER in the *"50 RHYTHMS"* section are used for storing ***both*** the Auto-Accompaniment patterns and the ONE FINGER AD-LIB phrases that you create. Therefore, if you had saved the Ad-lib phrases created above as USER, the modified version of the POP ROCK rhythm pattern (which you created and stored as USER previously) would be erased, and the Auto-Accompaniment rhythm pattern you selected in order to create the Ad-lib phrases would take its place. If you would like to create ONE FINGER AD-LIB phrases to go with a rhythm of your own invention, then you should edit and store the rhythm in advance. Then, select this user rhythm when you are ready to create the Ad-lib phrases.
2. It is possible to input up to about 300 notes for a single Auto-Accompaniment pattern (combined total for Basic, Intro, Fill in, Intro and Ending patterns), and up to about 270 notes for all the ONE FINGER AD-LIB phrases for a single pattern (combined total for seventeen phrases).

Using the SYSTEM Functions: Tuning Control

In this section we will outline the FS650's SYSTEM functions (which are concerned with the overall control of the FS650).

SYSTEM functions

The SYSTEM functions include:

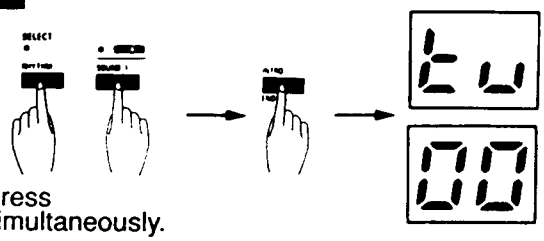
1. TUNING CONTROL (pitch adjustment)
2. TRANSPOSE (key change)
3. Accompaniment Hold Pedal function selection
4. Selection among the four types of Auto-Accompaniment. (Please see the section on "Advanced Use of Auto-Accompaniment Section" above.)

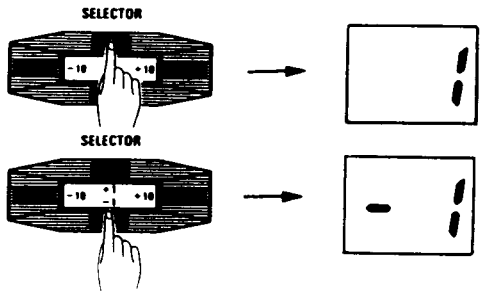
1. TUNING CONTROL

Press both the **RHYTHM** button and the **SOUND 1** button simultaneously, then press the **START/STOP** button. The display should begin to flash, alternately showing the letters tU (short for TUNE) and the number 00.

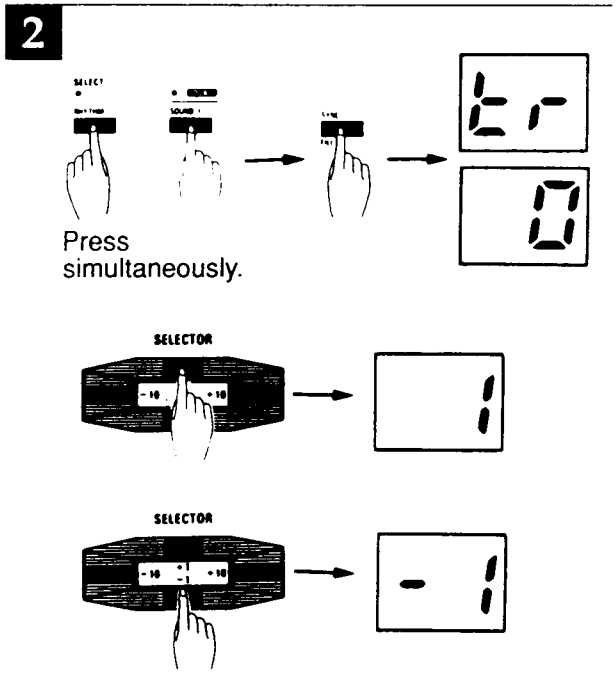
If you press the **SELECTOR +1** button once, the number in the display will change to read 1 and the pitch will raise slightly. If you press the **-1** button instead, the number will change to -1 and the pitch will drop. You can use the TUNE function to adjust the FS650's pitch within a range of -8 to 7.

1





Transpose and Accompaniment Hold Pedal



2. TRANSPOSE

Press both the **RHYTHM** button and the **SOUND 1** button simultaneously, then press the **SYNC/FILL IN** button. The display will begin to flash, alternately showing the letters tr (short for TRANSPOSE) and the number 0.

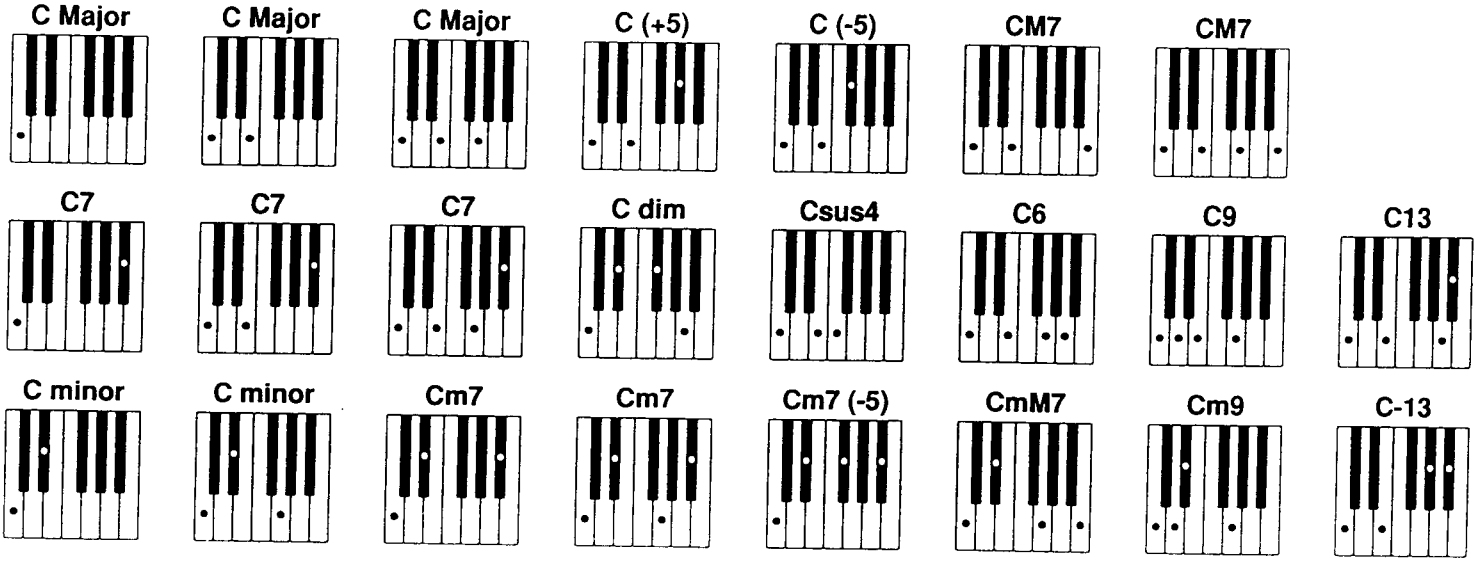
If you press the **SELECTOR +1** button, the number in the display will change to read 1 and the pitch will raise by a half step. If you press the **-1** button instead, the number will change to -1 and the pitch will drop by a half step. You can use the TRANSPOSE function to adjust the FS650's pitch by a full octave upward or downward (that is, from -9 half steps to +9 half steps).

3. **Accompaniment Hold Pedal function select**

Press both the **RHYTHM** button and the **SOUND 1** button simultaneously, then press the **DUET** button. The display will begin to flash, alternately reading AC and PE. The AC stands for Accompaniment. PE lets you know that the Accompaniment Hold pedal, when depressed, will control the Accompaniment Hold function. If you press the **SELECTOR +10** button, the display should begin to flash, alternately reading AC and F1. The F1 stands for Fill in. Now, when the Accompaniment Hold pedal is depressed it will operate the in the same manner as the **SYNC/FILL IN** button. This lets you insert Fill in patterns without your fingers ever leaving the keyboard. Fill in patterns are activated when you depress the pedal. To return the Accompaniment Hold pedal to its normal function, press both the **RHYTHM** button and the **SOUND 1** button simultaneously, then press the **SELECTOR-10** button.

Appendixes

How to play chords that FS650 can recognize (C root)



Specifications

FS650

Keyboard:	61 keys, standard
Sounds:	100
Rhythms:	50
Effects:	stereo chorus, sustain, pitch bend, duet
Rhythm controls:	START/STOP INTRO/ENDING SYNC./FILL IN TEMPO
Recorder:	REC/END PLAY/STOP
Auto accompaniment:	LOWER MODE select
User program:	Auto-Accompaniment ONE FINGER AD-LIB
Volume controls:	MASTER Volume ACCOMPANIMENT Volume
Miscellaneous controls:	ONE FINGER AD-LIB button ON/OFF button DEMO button
Speakers:	12 cm x 2
Rated voltage:	9-12 V DC: six size C dry cell batteries or power adaptor (PS-121 or PS-123)
Accessory jacks:	ACC. HOLD RCA STEREO OUT DC (9-12 V) IN HEADPHONE
Accessories:	six size C dry cell batteries music stand

KAWAI

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